

## **REMARKS/ARGUMENTS**

Claim 68 has been cancelled without prejudice or disclaimer. Claims 8-11, 13, 15, 48, 53, 61, 62 and 67 are amended. Claims 1-7, 16-47, 49-52, 54-59, 63, 64 and 69-72 have been withdrawn. Claims 73 and 74 have been added. Claims 8-15, 48, 53, 60-62, 65-67, 73 and 74 are pending in this application.

New claim 73 is directed to a polynucleotide comprising a sequence as defined in SEQ ID NO: 4, SEQ ID NO:11, or a sequence that hybridizes to SEQ ID NO: 4 or SEQ ID NO:11 under hybridization conditions stated in the claim. The polynucleotide has been further defined by encoding a polypeptide that induces oocyte activation. Support for claim 73 may be found for example, in paragraph [0053] on page 21, last line to page 22, line 6, with reference to Figure 7A to 7E, paragraph [0133] on page 48, paragraph [0182] and Table 1 on page 69, paragraph [0193] and Tables 2-5 on pages 74-77.

Support for new claim 74 may be found for example, on page 8, paragraph [0015], line 5, and with reference to Figure 4B.

Claims 61 and 62 have been amended to define the conditions for determining % identity. Support for these amendments may be found for example, on page 64, lines 3-4 of paragraph [0170]. Furthermore, the polynucleotide of these claims has been defined by encoding a polypeptide that induces oocyte activation. Support for this amendment may be found for example in paragraph [0133] on page 48, in paragraph [0182], Table 1 on page 69, paragraph [0193] and Tables 2-5, pages 74-77. Claim 61 has also been amended to redefine the length of the nucleotide sequence from "36 to 933" to read "36 to 975". This sequence refers to the ORF encoded by SEQ ID NO:4 as indicated on page 64, paragraph [0169], and with reference to Figure 2.

Claim 67 has been amended to further define the adapter protein as being a c-Yes adapter protein. Support for this amendment maybe found in the second last sentence of paragraph [008] on page 5 of the specification.

Claims 8, 9, 11, 13, 48 and 53 have been amended to depend from new claim 73.

## **Priority document**

Enclosed is copy of the priority document as requested by Examiner. Applicant notes that a copy of the certified document has been previously provided on June 11, 2002.

Receipt of a copy of the certified priority document has been acknowledged by the USPTO (see copy of post card attached).

### **Objection under 35 U.S.C. 112**

Claims 8-15, 48, 53, 60-62 and 65-68 have been rejected under 35 USC 112.

Applicant has amended claims 8, 48 and 53 to depend from new claim 73. Claim 73 defines a polynucleotide defined by SEQ ID NO: 4, SEQ ID NO:11, or a sequence that hybridizes to SEQ ID NO: 4 or SEQ ID NO:11 under defined hybridization conditions, wherein the polynucleotide encodes a polypeptide that induces oocyte activation. It is submitted that PT32 is shown in Figures 7A, 7B and 7C to selectively hybridize with nucleic acids obtained from bull, human, and rat testis, identifying similar sequences across species boundaries. Additional supportive data indicates that antibodies produced from PT32 selectively recognize sperm from Rhesus monkey (Figure 6), bull (Figure 5), and human (see paragraph [0170], page 68) again indicating biological recognition of PT32 across species boundaries. Furthermore, microinjection of recombinant PT32 (rPT32) into bull oocytes (see paragraph [0182] page 69) or Rhesus monkey oocytes (see paragraph [0193], page 74) resulted in oocyte activation. Applicant therefore submits that the subject matter defined in claim 73 is proper. Claims 9-15, 60, and 65-67 each depend directly or ultimately from claim 73 and include the limitations of this claim.

The nucleotides specified in claims 61 and 63 refer to the nucleotides that encode the open reading frames of the sequences defined by either SEQ ID NO:4 or 11. Claims 61 and 62 have been amended to further define the conditions for determining % identity and to indicate that the polynucleotide encodes a polypeptide that induces oocyte activation. For reasons described above with respect of new claim 73, Applicant submits that the subject matter of claims 62 and 63 is also proper.

Claim 10 has been amended to delete the phrase “a degenerate variant thereof”. However, it is to be understood that Applicant has not surrendered claim to the variants defined in this claim as such variants will be included within the scope of claim 73, provided they meet the limitations defined in claim 73. A similar amendment has not been made to claims 9 and 48. Applicant submits that the term “conservative variant” in claims 9 and 48 is well defined within the specification on page 28, paragraph [0073] (see middle of paragraph)

to page 29, and is therefore not indefinite. Furthermore, claims 9 and 48 each depend from, and further define, the polynucleotide of claim 73.

Claim 67 has been amended to further define "adapter protein".

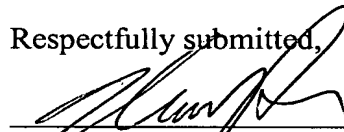
Claim 68 has been cancelled without prejudice or disclaimer, and the rejection against this claim is moot.

Based on the above claims amendments and comments, removal of the rejection to claims 8-15, 48, 53, 60-62 and 65-68 under 35 USC 112 is requested.

It is respectfully submitted that the above-identified application is now in a condition for allowance and favourable reconsideration and prompt allowance of these claims are respectfully requested. Should the Examiner believe that anything further is desirable in order to place the application in better condition for allowance, the Examiner is invited to contact the applicant's undersigned attorney at the telephone number listed below.

A separate petition for extension of time for two months is submitted herewith so that this response will be considered as timely filed.

Respectfully submitted,



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